

Cypraea: A List of the Species. II.

BY

JERRY DONOHUE

Department of Chemistry, University of Pennsylvania, Philadelphia, Pennsylvania 19104

(1 Text figure)

NOW, AT LAST, that the beautiful and long awaited book on living cowries by BURGESS (1970) has appeared, it seems appropriate to update an earlier analysis (DONOHUE, 1965) of the situation regarding a definitive listing of the valid species of *Cypraea*. Such a list should be of interest to cypraeophiles. Unfortunately, Burgess' apparently definitive treatment of this problem is in incomplete agreement with the latest treatment of the same problem from another source (SCHILDER, 1969) well known for

its expertise in this genus (*s. l.*). This lack of agreement probably should have been anticipated. Indeed, there is incomplete agreement where it might have been hoped to exist, e. g., among SCHILDER, 1965, 1967 and 1969. We therefore choose for treatment below only the two most recent sources cited above.

SCHILDER (1969) lists 170 species and 21 "prospecies," and BURGESS (1970) lists 185 species while remarking that 3 more taxa need more study; however, in an ad-

Table 1

Species of *Cypraea* accepted by both SCHILDER (1969) and BURGESS (1970) [A of Figure 1]

<i>achatidea</i>	<i>childreni</i>	<i>fimbriata</i>	<i>lamarckii</i>	<i>ocellata</i>	<i>scurra</i>
<i>albuginosa</i>	<i>chinensis</i>	<i>friendii</i>	<i>langfordi</i>	<i>onyx</i>	<i>spadicea</i>
<i>algoensis</i>	<i>cicercula</i>	<i>fultoni</i>	<i>lentiginosa</i>	<i>ostergaardi</i>	<i>spurca</i>
<i>amphithales</i>	<i>cinerea</i>	<i>fuscudentata</i>	<i>leucodon</i>	<i>ovum</i>	<i>staphylaea</i>
<i>angustata</i>	<i>citrina</i>	<i>fuscorubra</i>	<i>limacina</i>	<i>owenii</i>	<i>stercoraria</i>
<i>annettae</i>	<i>clandestina</i>	<i>gambiensis</i>	<i>lurida</i>	<i>pallida</i>	<i>stolida</i>
<i>annulus</i>	<i>cohenae</i>	<i>gangranosa</i>	<i>lutea</i>	<i>pallidula</i>	<i>subviridis</i>
<i>arabica</i>	<i>contaminata</i>	<i>gaskoini</i>	<i>lynx</i>	<i>pantherina</i>	<i>sulcidentata</i>
<i>arabacula</i>	<i>coxeni</i>	<i>globulus</i>	<i>macandrewi</i>	<i>picta</i>	<i>surinamensis</i>
<i>argus</i>	<i>cribellum</i>	<i>goodallii</i>	<i>maculifera</i>	<i>piperita</i>	<i>talpa</i>
<i>armeniaca</i>	<i>cribraria</i>	<i>gracilis</i>	<i>mappa</i>	<i>poraria</i>	<i>teramachii</i>
<i>artuffeli</i>	<i>cumingii</i>	<i>granulata</i>	<i>marginalis</i>	<i>porteri</i>	<i>teres</i>
<i>asellus</i>	<i>cylindrica</i>	<i>grayana</i>	<i>marginata</i>	<i>pulchella</i>	<i>tessellata</i>
<i>aurantium</i>	<i>decipiens</i>	<i>guttata</i>	<i>mariae</i>	<i>pulchra</i>	<i>testudinaria</i>
<i>barclayi</i>	<i>declivis</i>	<i>hammondae</i>	<i>martini</i>	<i>pulicaria</i>	<i>teulerei</i>
<i>beckii</i>	<i>depressa</i>	<i>helvola</i>	<i>mauiensis</i>	<i>punctata</i>	<i>tigris</i>
<i>bistrinotata</i>	<i>dillwyni</i>	<i>hesitata</i>	<i>mauritiana</i>	<i>pyriformis</i>	<i>turdus</i>
<i>boivini</i>	<i>diluculum</i>	<i>hirasei</i>	<i>mexicana</i>	<i>pyrum</i>	<i>ursellus</i>
<i>broderipii</i>	<i>edentula</i>	<i>hirundo</i>	<i>microdon</i>	<i>quadrinaculata</i>	<i>valentia</i>
<i>camelopardalis</i>	<i>eglantina</i>	<i>histrion</i>	<i>midwayensis</i>	<i>rabaulensis</i>	<i>ventriculus</i>
<i>capensis</i>	<i>englerti</i>	<i>hungerfordi</i>	<i>miliaris</i>	<i>rashleighana</i>	<i>venusta</i>
<i>caputdraconis</i>	<i>erosa</i>	<i>interrupta</i>	<i>minoridens</i>	<i>reevei</i>	<i>vitellus</i>
<i>caputserpentis</i>	<i>errones</i>	<i>irrorata</i>	<i>moneta</i>	<i>robertsi</i>	<i>wredenburgi</i>
<i>carneola</i>	<i>erythraeensis</i>	<i>isabella</i>	<i>mus</i>	<i>rosselli</i>	<i>walkeri</i>
<i>catholicorum</i>	<i>esontropia</i>	<i>katsuae</i>	<i>nigropunctata</i>	<i>sanguinolenta</i>	<i>xanthodon</i>
<i>caurica</i>	<i>exusta</i>	<i>kieneri</i>	<i>nivosa</i>	<i>saulae</i>	<i>zebra</i>
<i>cernica</i>	<i>felina</i>	<i>labrolineata</i>	<i>nucleus</i>	<i>schilderorum</i>	<i>ziczac</i>
<i>cervus</i>					<i>zonaria</i>

Table 2
Taxa of *Cypraea* in disagreement

taxon	status in:		reference in Figure 1
	SCHILDER, 1969	BURGESS, 1970	
<i>thersites</i>	species	doubtful (= <i>freundii</i> ?)	B
<i>bicolor</i>	species	variation of <i>piperita</i>	C
<i>catei</i>	species	variation of <i>venusta</i>	C
<i>queenslandica</i>	species	variation of <i>hirasei</i>	C
<i>hartsmithi</i>	species	not mentioned	D
<i>stohleri</i>	species	not mentioned	D
<i>aequinocialis</i>	prospecies	species	E
<i>bregeriana</i>	prospecies	species	E
<i>cervinetta</i>	prospecies	species	E
<i>coloba</i>	prospecies	species	E
<i>eburnea</i>	prospecies	species	E
<i>fernandoi</i>	prospecies	species	E
<i>petitiana</i>	prospecies	species	E
<i>semiplota</i>	prospecies	species	E
<i>serrulifera</i>	prospecies	species	E
<i>subteres</i>	prospecies	species	E
<i>yaloka</i>	prospecies ¹	species	E
<i>acicularis</i>	prospecies	doubtful (= <i>spurca</i> ?)	F
<i>nebrites</i>	prospecies	doubtful (= <i>erosa</i> ?)	F
<i>adusta</i>	prospecies	variation of <i>onyx</i>	G
<i>dorsalis</i>	prospecies	variation of <i>subviridis</i>	G
<i>fischeri</i>	prospecies	synonym of <i>gaskoini</i>	G
<i>listeri</i>	prospecies	variation of <i>felina</i>	G
<i>notata</i>	prospecies	synonym of <i>gracilis</i>	G
<i>raysummersi</i>	prospecies	variation of <i>hammondae</i>	G
<i>superstes</i>	prospecies	synonym of <i>martini</i>	G
<i>tomlini</i>	prospecies	variation of <i>cernica</i>	G
<i>cassiaui</i>	subspecies	species	H
<i>comptonii</i>	cline	species	H
<i>kuroharai</i>	subspecies	species	H
<i>leviathan</i>	mutant	species	H
<i>luchuana</i>	cline	species	H
<i>obelata</i>	cline	species	H
<i>summersi</i>	cline	species	H
<i>margarita</i>	cline	doubtful (= <i>cicercula</i> ?)	I
<i>dayritiana</i>	not mentioned	species	J
<i>musumea</i>	not mentioned	species	J
<i>thomasi</i>	not mentioned	species	J
<i>gondwanalandensis</i>	(new)	species	K
<i>steineri</i>	(new)	species	K

¹ as *humphreysii* (see BURGESS, p. 86)

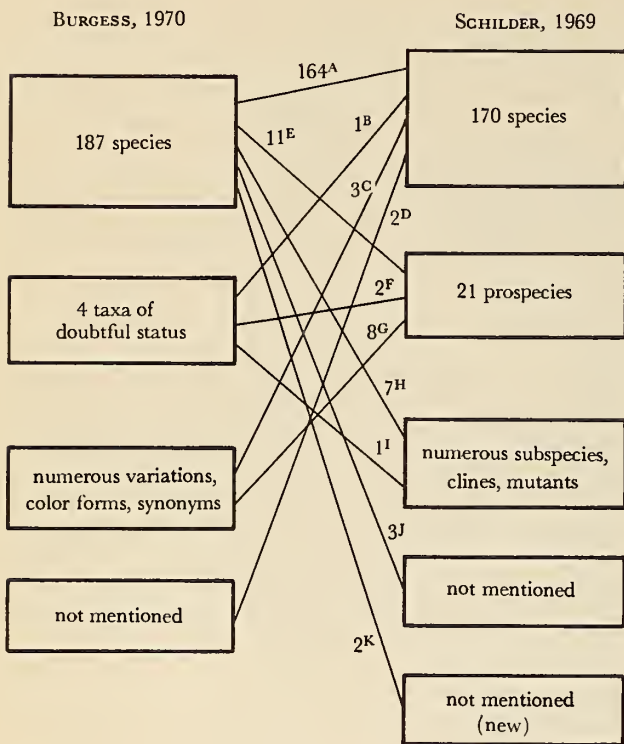


Figure 1

Differences in assignments of 204 taxa of *Cypraea*

dendum, BURGESS accepts 4 sp. nov., places 1 of the 185 into the synonymy (*latior*) and 1 of the 185 into the doubtful classification (*nebrites*). The net opinion of

Burgess is thus 187 species plus 4 provisional or doubtful species. The fact that $170 + 21 = 187 + 4$ is merely a numerical coincidence: the differences between the Schilder and Burgess lists are far more subtle. A complete analysis of the two lists is presented in Figure 1. The details of the differences which appear in Figure 1 are presented in Tables 1 and 2.

The two authorities agree on the status of 164 taxa as species. It is interesting that of the 21 prospecies of Schilder, Burgess accepts 11 as species, considers 2 doubtful, and relegates 8 to synonymy. It is also interesting that 2 of the species recognized by Schilder are not mentioned by Burgess, while 3 of the species recognized by Burgess are not mentioned by Schilder. The overall picture, however, is on the hopeful side, for there appears to be less confusion than there was as recently as 5 years ago.

Literature Cited

BURGESS, C. M.
1970. The living cowries. A. S. Barnes & Co., Cranbury, N. J. pp. 1 - 389; pls. 1 - 44

DONOHUE, JERRY
1965. *Cypraea*: a list of the species. The Veliger 7 (4): 219 - 224 (1 April 1965)

SCHILDER, FRANZ ALFRED
1965. The geographical distribution of cowries (Mollusca: Gastropoda) The Veliger 7 (3): 171 - 183; 2 maps (1 January 1965)

1969. Zoogeographical studies on living cowries. The Veliger 11 (4): 367 - 377; 1 map (1 April 1969)

SCHILDER, MARIA
1967. Length, breadth, and dentition in living cowries. The Veliger 9 (4): 369 - 376; 1 diagram (1 April 1967)

